Toronto Central

LOCAL HEALTH INTEGRATION NETWORK

2007-2010 e-Health Strategy

December, 2006

Ontario

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1.0 Executive Summary

The Ministry of Health and Long-Term Care (MOHLTC) requires that each of the province's 14 Local Health Integration Networks (LHINs) map out priorities for health system transformation at the local level in Integrated Health Service Plans (IHSPs). Part of each LHIN's IHSP is an e-Health Strategy that supports and enables health service providers in ensuring clients receive safe, high quality, effective and efficient health services. This document is the three-year e-Health Strategy for the Toronto Central LHIN (TC LHIN).

The TC LHIN e-Health Strategy encompasses three broad priorities: improving access to care, coordinating services, and enhancing the management of chronic disease. All LHIN e-Health activities will follow the confidentiality and privacy guidelines outlined in Ontario's Personal Health Information Protection Act (PHIPA). In addition, 11 guiding principles and a governance model – referred to as the Principles of Participation (POP) – provide the underpinning for every activity.

This report provides a brief definition of e-Health, summarizing its importance to all participants of the health care system. It describes the four-phase process that was used to develop the TC LHIN strategy: undertaking a current state assessment, defining the plan's strategic theme and three priority areas, developing seven priority initiatives and creating a model to oversee implementation of the plan. While the TC LHIN e-Health Strategy does not capture all e-Health initiatives, it does emphasize the importance of TC LHIN involvement where organizations have come together to collaborate on e-Health projects. Finally, the report describes how funding may be obtained to implement the initiatives described and next steps for rollout of the strategy initiatives.

2.0 Introduction

One goal of the province of Ontario is to have the safest, highest quality and most sustainable health system in Canada by 2015 as a result of people having the right information, at the right time, and in the right place.[1] The government wants to ensure that Ontarians have the information they need to make decisions about their health and health care. It wants health providers to be free to focus on timely and high quality care, and a health system that is accountable, equitable, effective and efficient.

Local Health Integration Networks (LHINs) are not-for-profit organizations that have been set up by the Ontario government to help achieve this goal. There are 14 LHINs in the province that are responsible for planning, bringing together and paying for health care services in their area. These services are delivered by hospitals, long-term care homes, community health centres, community support services, and mental health and addictions agencies. While LHINs may not necessarily provide the services, they will fund the services and ensure providers are delivering them effectively. The LHINs also are responsible for monitoring and reporting on local health system performance.

Ontario's Ministry of Health and Long-Term Care (MOHLTC) created LHINs based on the idea that people know what kind of health care services they really need close to home. LHINs are expected to ask local residents and health care providers what these services should be.

Since it was created on June 2, 2005, the TC LHIN has been listening to feedback from local residents and health care providers on how to make health care services better. The feedback received was used to develop the first health care service plan for the local Toronto Central area. This report – *The Toronto Central Local Health Integration Network's Integrated Health Service Plan (IHSP)* – includes a three-year vision for the TC LHINs health system and nine priorities for action that the TC LHIN is committed to achieving on behalf of all those who use and provide health services in this region.[2]

One priority – the focus of this report – is to develop an e-Health Strategy to assist the TC LHIN in integrating information among health service organizations so they can deliver services in a smoother, more seamless fashion. The TC LHIN's strategy keeps with the province's vision of e-Health "as a series of initiatives targeting the needs of multiple sectors of the provincial health care system, and integrating each sector into a fully modern health care system [that includes] important local and regional projects throughout Ontario that are delivering local care needs."[3] For example, health care providers need to be able to access and share information confidentially if they are to provide people with safe, high quality, effective and efficient health care services. The TC LHIN considers information management and technology to be essential in streamlining these activities and, ultimately, in sustaining our health system.

[1] Ministry of Health and Long-Term Care website www.health.gov.on.ca/ehealth/.
[2] Toronto Central Local Health Integration Network website www.torontocentrallhin.on.ca/ihsp/ihsp_mn.html.
[3] Ministry of Health and Long-Term Care website www.health.gov.on.ca/ehealth/.

2.1 What is e-Health?

Ontario's health system landscape is large and complex. The MOHLTC believes e-Health will help achieve better health outcomes by transforming health systems and business practices through the investment in and more comprehensive use of information and information technology.[4] According to the Ontario Hospital Association, e-Health is, "a consumer or client-centred model of health care where stakeholders collaborate utilizing Information and Communications Technology (ICT), including Internet technologies, to manage health, arrange, deliver, and account for care, and manage the health care system."[5] In other words, through the use of technology, e-Health helps everyone in health care work together better for the benefit of all those who participate in the system including consumers, providers and organizations.

2.2 Why is e-Health important?[6]

The MOHLTC identified a number of ways in which consumers, health care providers and health care organizations would benefit from a broad scale, integrated information management and technology system. For example:

2.2.1 Consumers

E-health is important to health care consumers because it can facilitate:

- Improved access to services and specialists resulting in shorter wait times;
- Greater ability to receive health services locally, resulting in less need to travel extensively to see a doctor;
- Faster delivery of services because of better system integration;
- Greater consumer safety as a result of fewer errors, such as receiving the wrong medication.

2.2.2 Professionals

E-health is important to clinicians, health service administrators and professionals because it can contribute to:

- Timely access to critical health information;
- Coordinated service delivery reporting that allows for improved, timely and appropriate follow-up.

[4] Ministry of Health and Long-Term Care presentation, *"Ontario's Vision and e-Health Strategy,"* March 12, 2004.
[5] Ontario Hospital Association website http://www.oha.com/people/oha/oha_lp4w_lnd_webstation.nsf/page/About+e-Health.
[6] Ministry of Health and Long-Term Care presentation, *"Ontario's Vision and e-Health Strategy,"* March 12, 2004.

2.2.3 Organizations

E-health is important to organizations, such as community health centres, community support service organizations, hospitals, long-term care centres and diagnostic laboratories, because it enables:

- Reduced duplication of services leading to more cost-effective and efficient use of the overall health system;
- Improved fiscal accountability through greater predictability of health spending;
- Better clinical efficiency, effectiveness and safety.

2.3 Privacy and confidentiality

The TC LHIN understands the paramount importance of protecting the collection, use and disclosure of personal health information. To make sure that all e-Health initiatives meet the standards of privacy and confidentiality, the TC LHIN will abide by the *Personal Health Information Protection Act* (PHIPA). These rules consist of 10 underlying principles:

• Accountability	• Accuracy
• Identifying purposes	• Safeguards
• Consent	• Openness
• Limiting Collection	• Access
• Limiting Use, Disclosure and Retention	• Challenging Compliance

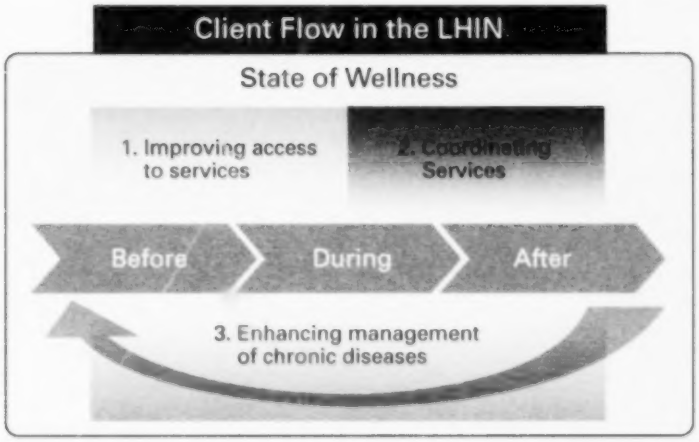
Every e-Health initiative will undergo a Privacy Impact Assessment process, which considers all potential impacts on privacy with the objective of reducing or eliminating them. As part of the governance model, TC LHIN will establish a working group to oversee all privacy and confidentiality matters. For more detailed information on PHIPA and its underlying principles, please refer to the Office of the Information and Privacy Commissioner of Ontario website.[7]

[7] Information and Privacy Commissioner/Ontario website www.ipc.on.ca

3.0 Toronto Central LHIN e-Health Strategy

The overarching theme of the TC LHIN's e-Health Strategy is *"building **information** bridges to support the **integration** of **service** delivery."* This theme conveys the notion that connecting information management and technology within and across health service organizations is fundamental to achieving improved coordination and integration. The three-year e-Health Strategy works with the existing IM/IT infrastructure and capacity within organizations, helping create channels for sharing information to assist in delivering more efficient, effective and people-friendly health services. The strategy's initiatives span organizations across the continuum of care, including acute care, rehabilitation, long-term care and community services.

Figure 1. Toronto Central LHIN e-Health Theme and Strategic Priorities



Aligned with the strategic priorities detailed in the TC LHIN's IHSP, the e-Health Strategy is the result of widespread cross-sector consultations with providers in the TC LHIN. The consultations recognized that many successful examples of collaboration between organizations and agencies currently exist in the TC LHIN. However, there is further opportunity to link and leverage existing information systems, improving integration of information. This is especially true in the community sector. The lack of integration makes it difficult for providers to get a complete picture of a person's health and his/her health care, and for people who are receiving services to move smoothly and confidently from one provider to another. By helping health care providers link with other health care providers and by helping the people who are receiving services to move easily between providers, the TC LHIN's e-Health Strategy initiatives are aimed at ensuring every person receives high quality and timely care.

The TC LHIN's strategy aligns with other initiatives, such as Ontario's e-Health Strategy in that "it is being designed to ensure the delivery of the right information about the right individual to the right person at the right place and the right time in order to enhance health outcomes and improve system efficiency."[8] The TC LHIN also sees the need for a common direction and governance structure that will oversee the coordination, integration and monitoring of e-Health initiatives.

[8] Ministry of Health and Long-Term Care presentation, *"Ontario's Vision and e-Health Strategy,"* March 12, 2004.

3.1 Priorities and Initiatives

The basis for the TC LHIN's e-Health Strategy is client flow through the health system. Grouped into three priority areas and seven key initiatives (see Appendix A), the strategy addresses the needs of people at all stages of the health care system. Priority one focuses on helping people who require health services for the first time to access information about the system quickly and easily. Priority two focuses on coordinating care between multiple providers so that people already in the system can move between services in a timely and efficient fashion. Priority three involves people who have chronic conditions and require ongoing or periodic health management. The ultimate goal of all three priorities and associated initiatives is to enable people to remain in a state of wellness for as long as possible. Accomplishments in all three priority areas is necessary to achieve an integrated health care system that better serves its consumers.

Priority 1: Improving Access to Care

Improving access to the health services people need when they are needed is critical to a well-functioning system. E-health can assist by increasing awareness to both providers and the people who receive services by sharing information about the services that are available, streamlining processes for accessing services and providing information on how to use services more efficiently in order to work within the current system capacity.

Initiatives identified to improve access to care and some of their intended benefits are:

1. An inventory of services within the LHIN, increasing provider and consumer awareness of available health services;
2. A resource management system, allowing for better matching of resources to client needs;
3. Expansion of the provincial Wait Times Information System to non-acute organizations, assessing capacity and resource requirements at the hospital, LHIN and provincial levels.

Priority 2: Coordinating Services

The initiatives within this priority area assist to improve the coordination of care for those actively receiving health care services. The intention is to improve the handoffs between providers through facilitating common information collection and sharing practices in a timely fashion with other providers who are caring for the same person. By ensuring services are better coordinated, people who are actively accessing health system services are more likely to receive care when they need it and less likely to fall 'between the cracks.'

Initiatives identified for this priority and some anticipated benefits are:

- The design of a Clinical Portal for providers across organizations to securely access a person's medical history, aimed at improving coordination of care and patient safety;
- Development of a standardized Referral Management system, eliminating the need to request the same information multiple times, saving time and reducing the risk of errors;
- Extending the current Enterprise Master Patient Index (EMPI) to include visit history for all patients and clients and extending beyond its current implementation to non-acute care organizations, serving as a building block for all LHIN integration initiatives and allowing information sharing to occur among all participating organizations.

Priority 3: Enhancing the Management of Chronic Disease

A growing number of people are living with diseases or health conditions that typically last for long periods of time, such as diabetes, arthritis, rheumatism, heart conditions and mental illness. This third priority focuses on developing a multi-faceted chronic disease management (CDM) framework, helping people with chronic illnesses better manage their own health and remain in a state of wellness for as long as possible.

It includes the following initiatives and associated benefits:

- Creation of a disease registry to track and enrol people with chronic conditions in chronic disease management programs to help them achieve optimal health;
- Development of a client portal, giving health care consumers a forum to interact with other consumers as well as a place to receive accurate and reliable educational information about their illness;
- An electronic scheduling system, coordinating appointments for consumers requiring multiple visits;
- Establishment of a care plan management system based on best practice guidelines, helping actively manage symptoms and monitor compliance to routine assessments;
- A call centre infrastructure, offering a single point of access for information related to care needs.

An important component of this priority is to be proactive around client care needs in order to prevent clients from having to require acute care resources (such as the Emergency Department) to treat and manage their conditions. This CDM framework is based on proven methodologies and is recognized as an effective method to support and empower clients to play a more active and educated role in their care plan.

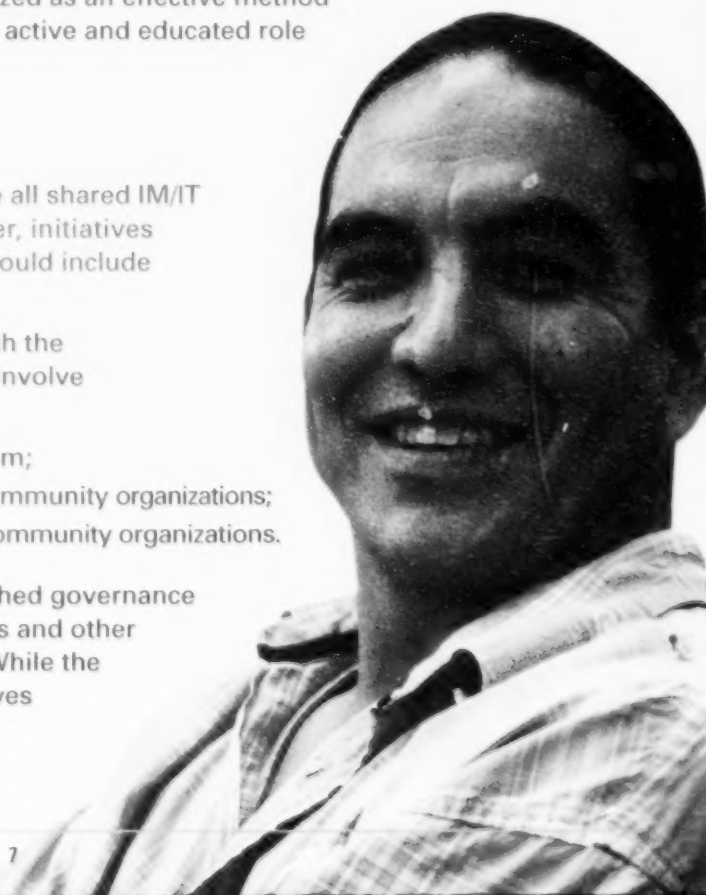
3.1.1 Other Initiatives

The TC LHIN e-Health Strategy does not outline all shared IM/IT initiatives that may occur in the LHIN. However, initiatives that involve more than a single organization should include the TC LHIN's participation.

Examples of shared initiatives identified through the development of the e-Health Strategy that will involve the LHIN include:

- A common electronic ambulatory care system;
- Common IM/IT related support services for community organizations;
- A common electronic registration system for community organizations.

The TC LHIN e-Health Strategy and the established governance structure will coordinate these shared initiatives and other similar shared initiatives as they come about. While the TC LHIN may not necessarily lead these initiatives directly, it will provide direction and support to ensure alignment of these shared initiatives with the broader TC LHIN plan.



3.2 Principles of Participation

To support the execution of the LHIN's e-Health Strategy, the TC LHIN e-Health Strategic Council (formerly the e-Health Community Advisory Group) provides leadership and advice for e-Health planning and implementation. The Council will be supported by committee and working group structures, which will recommend approaches for carrying out the e-Health Strategy initiatives (see Figure 2). These structures include (but are not limited to) a multi-sector Services Procurement Committee, a Privacy and Confidentiality Working Group, Project Steering Committees to guide each LHIN e-Health project (working with the Project Control Office) and ongoing consultation sessions with provider organizations.

Figure 2. TC LHIN e-Health Decision Making Structure

The e-Health decision making structure is an organizational and governance framework for TC LHIN e-Health initiatives that has been developed by the Council and is further described through a set of defined Principles of Participation.

The role of the Council is to identify and prioritize e-Health initiatives for health service integration. Additionally, the LHIN e-Health Strategic Council will be responsible for characterizing the value proposition and benefits of e-Health initiatives, developing metrics for measuring impact of initiatives and providing leadership for implementation of initiatives.

In addition, the Council assists with communication and adoption strategies, advises on and champions strategies for funding and change management, assesses environmental risks and risk mitigation strategies and develops principles for the implementation of local and collaborative project approaches.

The Council includes clinical and senior management leadership from across the health care system with representation from:

- Acute Care and Rehab Hospitals
- Addictions
- Community Care Access Centres
- Community Health Centres
- Community Support Services
- Family Health Teams
- Long Term Care
- Mental Health
- Ontario Telehealth Network
- Patient Advocacy

The TC LHIN e-Health Strategic Council recognizes the distinct roles of, and the relationships between, the three key levels within the health care system: the MOHLTC (Ministry), the LHINs and the organizations within the LHIN boundaries.

Ministry – In accordance with the purpose articulated in the *Local Health System Integration Act, 2006*, the province sets a vision, priorities and strategic directions for improving the health of Ontarians through a strategic plan. It is anticipated that the Ministry's provincial e-Health strategy will be a crucial feature of the Ministry's strategic plan for the health system and will be a key strategy that the TC LHIN e-Health plan will align to.

LHIN – As required by the *Local Health System Integration Act, 2006*, each LHIN is responsible for establishing an IHSP for its region that reflects the needs of the local population and harmonizes with the provincial vision for the health system. The LHIN is responsible for implementing regional e-Health initiatives to support the organizations within the LHIN boundary and to advise organizations on operational decisions pertaining to the regional e-Health initiatives. The LHIN will regularly communicate with the Ministry to provide feedback on the alignment of e-Health initiatives. LHINs will seek opportunities to collaborate with one another in order to integrate e-Health initiatives where such partnerships would best serve client interests.

Organizations within LHIN boundaries – Organizations will have plans for delivering health services to their clients. Organizations may have e-Health plans in place to support the accomplishment of their health services and business objectives. Organizations will align their e-Health planning with the TC LHIN's e-Health strategy, which will in turn be aligned with the overall provincial e-Health strategy.

The *Local Health System Integration Act, 2006* defines which organizations are part of a LHIN. The LHIN e-Health Strategic Council will reach out to those other organizations that are not encompassed in the legislation (e.g. non-LHIN organizations) to plan collaborative e-Health initiatives. The TC LHIN e-Health Strategic Council will be responsible for garnering input that reflects the various sectors within the LHIN and will also make an effort to include non-LHIN members. The LHIN e-Health Strategic Council will assume responsibility for developing the TC LHIN's three year e-Health Strategic Plan, also providing direction and support regarding all shared initiatives as required.

3.3 How will initiatives be funded?

The underlying premise of the TC LHIN's e-Health Strategy is to encourage collaboration and integration across all sectors. To support and enable this premise, there may be multiple sources of funding for e-Health initiatives. It is anticipated that funding will be provided both directly for specific initiatives and indirectly for related e-health initiatives from overlapping sources.Examples of funding sources could be the TC LHIN, MOHLTC or through extending systems which have already been implemented in other organizations or sectors.

The TC LHIN will work to benefit from economies of scale and standardized processes in order to make the most of each funding dollar. In as many instances as possible, this will mean extending current capacity or enabling linkages to existing information so that many organizations will experience improvements in the way they deliver care.

4.0 How was the Strategy Developed?

4.1 Project Approach

There were four main phases in the development of the TC LHIN's e-Health Strategy. The first phase – a current state assessment – helped the TC LHIN gain a better understanding of the current information environment in the health sectors. This was accomplished by holding stakeholder interviews and a multi-sector stakeholder workshop, reviewing related documents (i.e., readiness assessments), and conducting an information management/technology survey of organizations within the TC LHIN. Eleven key principles to guide the development of the e-Health Strategy were defined during this phase, and the e-Health Strategic Council was formed to lead the initiative.

During the second phase, two workshops with advisory group members were held to define and review the e-Health Strategy's main theme, and to develop three strategic priorities (see Figure 1) along with a number of potential shared initiatives. An interim status report was then widely distributed to organizations within the TC LHIN inviting feedback.

The third phase involved narrowing the number of priority initiatives down to seven based on consideration of the feedback. Lastly, the Principles for Participation was developed during phase four.

4.2 Guiding Principles

The guiding principles for the development of the e-Health Strategy were defined during the course of the stakeholder interviews and validated by the e-Health Strategic Council.

The guiding principles state:

- We will focus first on identifying service delivery needs and then on the technology to support them;
- We will focus on cost effective, measurable and evidence-based initiatives that positively impact client care;

- We will recognize that we are all part of the same team and that we each have unique needs;
- We will recognize that we are not "starting from scratch" – we will leverage existing investments, initiatives and expertise where appropriate;
- We will recognize the relative starting positions of LHIN organizations in terms of IM/IT and that all organizations must move forward;
- We will leverage organizations that are ready and willing to participate and facilitate the future participation of those that are not;
- We will take an incremental approach and "not try to boil the ocean;"
- We will select initiatives that facilitate better data for outcomes tracking/evaluation/research/trends analysis;
- We will focus initiatives on seniors, mental health and addictions and rehabilitation to align with IHSP priorities;
- We will ensure client information is collected, managed and accessed in a secure and responsible manner;
- We will follow the principles of the Toronto Central LHIN community engagement strategy and ensure:

  - Inclusiveness
  - Timeliness
  - Appropriateness
  - Responsiveness
  - Accessibility
  - Transparency
  - Balance and Equity
  - Accountability

5.0 Next Steps

Over the next six months, the TC LHIN e-Health Strategy will focus on project planning activities such as:

- Identifying e-Health alignment opportunities among organizations;
- Developing an inventory of existing information services across the LHIN;
- Supporting the information management/technology components of the TC LHIN's Joint Health and Disease Management Project;
- Leveraging and supporting the work that organizations are already undertaking in developing and integrating their information management/technology processes and plans;
- Monitoring e-Health progress in the TC LHIN;

As of April 1, 2007, the LHIN plans to begin detailed planning for the e-Health initiatives outlined in the Strategy (pending funding). In addition, ongoing work will include:

- Continuing to review the e-Health plans of all TC LHIN organizations to identify alignment opportunities with the TC LHIN e-Health Strategy and with each other;
- Refreshing the TC LHIN e-Health Strategy based on activities that have been completed as well as those still remaining and/or intended for the future. The plan will also be revisited to maintain alignment with the Toronto Central LHIN Integrated Health Services Plan.

6.0 Appendix A: Toronto Central LHIN e-Health Strategic Plan Initiatives

Initiative	Description	Goal	Benefit
IMPROVING ACCESS TO CARE			
Inventory of services within the LHIN	Develop an electronic inventory of services available within the TC LHIN through a single point of access	To improve awareness of available services	• Increased awareness will help providers and clients identify and select appropriate services • Increased referrals to the appropriate services
Resource management system	A real-time service availability inventory will match the needs of clients to the appropriate facility and service	To improve the process for accessing LHIN Health.	• Better understanding and utilization of resources • Improved care as client needs are better matched to available resources • Reduced wait times as clients are matched to services earlier
Expansion of provincial Wait Times initiative	Expand on the provincial Wait Time Information System that currently measures wait times for cancer surgery, cardiac procedures, cataract surgery, hip and knee replacements, MRI exams, and CT exams to additional services and sectors	To improve the use of available capacity within the LHIN	• Improved ability to make capacity decisions • Improved understanding of how many, how long and where people are waiting for services • Leverage provincial funding to improve access to LHIN services • Informed decision making by clients and referral services
COORDINATING SERVICES			
Clinical portal	Link health information from multiple systems by providing a common user interface and a single view into the multiple clinical systems in the LHIN	Improve the exchange of information between providers	• Improved access to clinical information regardless of where it is collected or stored • Improved coordination of treatment as client's medical history can be viewed by clinicians regardless of location • Improved sharing and management of the most up-to-date client treatment information • Reduced administrative efforts to retrieve information • More prepared and proactive clinicians

Standardized referral management system	A system that encompasses electronic referrals across the care continuum, including referrals for: 1. Acute care to rehabilitation and complex continuing care; 2. Acute care to community and long-term care; and 3. Rehabilitation and complex continuing care to the community and long-term care	Improve the exchange of information between providers	• Reduced duplication as clients are not asked the same questions multiple times • Improved continuity of care as previous treatment information is always available • Reduced time spent transferring, locating and reviewing referral information as the most recent information is always available • Shorter client stays in acute care facilities as outbound referral processes occur more quickly
Link non-acute organizations and visit history to the provincial Enterprise Master Patient Index (EMPI) Initiative	A provincial initiative that will uniquely identify clients across the different providers and then consolidate a visit history. The EMPI is a foundational element for many e-Health initiatives as it allows patients to be linked across multiple organizations and therefore can match patient/client information for a more accurate and complete picture of that individuals health needs.	Match client demographic and visit information across the system	• Improved access for the most up-to-date client demographic information across the continuum of care • Uniquely identifies clients that may potentially have multiple records • Building block for key LHIN integration initiatives as it allows for information sharing among disparate systems • Treatment decisions can take into account where the client has already received services
ENHANCING MANAGEMENT OF CHRONIC DISEASES			
Chronic Disease Management Framework	Implementing a chronic disease management framework across the TC LHIN, focusing on empowering individuals, sharing accountability, enabling proactive care delivery, and engaging primary care physicians. The framework will include a Disease Registry, a Client Portal, a Provider Portal, a Case Management and Resource Scheduling System and a Care Coordination Centre/Call Centre.	Identify clients with chronic diseases and enroll them in a chronic disease management program Manage clients according to best practice guidelines Measure health outcomes	• Health outcomes will be optimized as clients are identified earlier enabling pro-active care • Clients empowered to take charge of their health care • Reduced economic and workload burden on acute care system due to shorter hospital stays • Reduced wait times for specialized services • Reduced adverse events

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ISBN 978-1-4249-3430-0 (English Print)